



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,736	07/10/2001	Daigo Morizumi	CU-2590 RJS	8472

7590

11/18/2002

Ladas & Parry
Suite 1200
224 South Michigan Avenue
Chicago, IL 60604

EXAMINER

DICUS, TAMRA

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 11/18/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-3

Office Action Summary	Application No. 09/901,736	Applicant(s) MORIZUMI ET AL.	
	Examiner Tamra L. Dicus	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 26-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-25, drawn to a scratch layer transfer sheet classified in class 428, subclass 195.
 - II. Claims 26-53, drawn to a method of producing a scratch print product classified in class 503, subclass 40.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the scratch layer of Group I can be made by providing a scratch layer prior to providing a transfer-receiving material.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Richard Streit on 10/28/02 a provisional election was made with traverse to prosecute the invention of I, claims 1-25. Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-53 are withdrawn from

Art Unit: 1774

further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 11 refers to claim 7, which does not have a first peeling layer. Claim 11 references a second peeling layer, which does not appear to be the case. Further it appears the following recitation is missing a comma between "layer and said": "at least said pattern layer, said second peeling layer and said hiding layer". Ultimately, it is not clear as to what specific structure is claimed in the instant claim 11.

9. Claims 5 and 21 are rejected 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1774

10. Claim 5 includes the limitation "HB". HB is not defined in the specification and is therefore unclear.
11. Claim 21 includes the vague limitation "is different". How the coloring agent transfer layer is different is not defined in the specification and is therefore unclear.
12. Claims 6, 7, 11, 12, 17, and 18 are rejected 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what layer(s) have a multilayer structure (i.e. peeling, pattern, adhesive, or scratch layers), as written "...has a multilayer structure" could refer to the scratch or subsequent layers.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,536,218 to Ganho in view of USPN 5,196,080 to Mizobuchi et al., USPN 6,308,630 to Kurokawa et al., USPN 5,335,315 to Yoshida et al., and USPN 4,124,947 to Kuhl et al.

Ganho teaches a hiding coat/layer composition that is removed by scratching (scratch

Art Unit: 1774

layer) to reveal a message on printed substrates like paper to form articles such as a lottery ticket. Printing patterns may also be applied over the hiding coat. The hiding composition is made of waxes such as Carnuaba wax, a powdered metal such as powdered aluminum pigment, further comprising carbon black pigment, and resins. See col. 1, lines 25-35, col. 1, line 65-col. 2, line 15, col. 2, lines 35-68, and col. 6.

Ganho does not specifically teach adding EVA resin, or defining the scratch layer as a transfer sheet. Despite these deficiencies, Mizobuchi teaches a heat transfer sheet that comprises a base film of PET or paper with a hot melt ink layer composition of carbon black, coloring agents, carnauba wax, and aluminium powders that are compatible with an EVA resin. See col. 1, lines 45-58, col. 2, lines 55-68, and col. 4, lines 15-65.

Both Ganho and Mizobuchi are analogous art because they are from the same field of endeavor, namely coating technology. Hence, it would have been obvious to one of ordinary skill in the art to modify the hiding layer of Ganho to include it on a heat transfer sheet on a substrate film for the purpose of printing on a film since Mizobuchi teaches both paper and polymer films of EVA are functional equivalents as polymer films improve smoothness for printing purposes see col. 1, lines 45-58 and col. 2, lines 55-68. Further using EVA is obvious to add since Mizobuchi teaches it is suitable for use in a transfer sheet.

That the hiding layer is able to be thermally transferredand removed...” is not germane since it has been held that an element that is “being able to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

Art Unit: 1774

Additionally, while Ganho does not disclose the transferable scratch area being 30 to 150% of the transfer-receiving material of instant claim 4, it would have been obvious to one of ordinary skill in the art to produce a transferable scratch/hiding layer in a range from 30 to 150% since Kurokawa teaches the size and shape of a pattern may differ depending upon what one desires the printed product to be configured, thereby stating that there is no limitation to the size and shape of a pattern on a transfer portion/receiving material (see Figure 2, col. 9, lines 60-65, and col. 10, lines 52-68). It is also obvious to produce a transferable scratch/hiding layer in a range from 30 to 150% since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Kuhl teaches suitable graphic patterns for imprinting substrates. Kuhl teaches pattern ratios are functions of the amount of coloring added to a substrate; refer to col. 3, lines 60-68, and col. 4, lines 45-58. Also Yoshida teaches methods for determining graphic area ratios. Yoshida clearly states the amount of ink is controlled by the relative areas of the pattern to be printed at col. 1, lines 40-53. Yoshida explains the aforementioned pattern ratio range is optimizable as in the printing process it is necessary to control the amount of printing ink depending upon the pattern ratio of a particular graphic element within the overall graphic pattern at col. 1, lines 54-60. Regarding the way in which the material is to be transferred is immaterial since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

The pencil scratch hardness property of claim 5 is inherent as the same components are used.

Art Unit: 1774

Ganho does not disclose a peelable layer. However, Mizobuchi teaches a further releasable layer may be added to improve releasability between the base film and ink layer. The Examiner takes the position that the peelable layer is a functional equivalent of a releasable layer, since both are used to provide easier removable properties from a substrate and are made of the same materials. See col. 7, line 50-col. 8, line 20.

While Ganho discloses it is known to print a pattern on a hiding layer (col. 2, line 14), such indicia as a design, text, or picture (col. 4, line 35) may be produced. Although he does not disclose a pattern in the form of a logo, firm name, or a mark, printing with the ink inherently makes a mark. Logo, name, and mark are all indicia and are synonymous to pattern, design, text, or picture.

The characteristic of the scratch and pattern layer in instant claim 9 is not taught by Ganho. It would have been obvious to one of ordinary skill in the art to produce a pattern ratio between 5 and 85% per 2 cm² since Kurokawa teaches the size and shape of a pattern may differ depending upon what one desires the printed product to be configured, thereby stating that there is no limitation to the size and shape of a pattern on a transfer portion/receiving material (see Figure 2, col. 9, lines 60-65, and col. 10, lines 52-68). It is also obvious to produce a pattern ratio between 5 and 85% per 2 cm² since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Kuhl teaches suitable graphic patterns for imprinting substrates. Kuhl teaches pattern ratios are functions of the amount of coloring added to a substrate; refer to col. 3, lines 60-68, and col. 4, lines 45-58. Also Yoshida teaches methods for determining graphic area ratios. Yoshida clearly states the amount of ink is controlled by the relative areas of the pattern to be printed at col. 1,

Art Unit: 1774

lines 40-53. Yoshida explains the aforementioned pattern ratio range is optimizable as in the printing process it is necessary to control the amount of printing ink depending upon the pattern ratio of a particular graphic element within the overall graphic pattern at col. 1, lines 54-60.

While Ganho discloses a coloring agent such as pigment in a hiding layer at col. 2, line 45, Ganho doesn't disclose additional components wax and an additional thermoplastic in the pattern layer of instant claim 10. However, since the hiding layer of Ganho teaches it is suitable to print a pattern, an additional pattern layer is obvious to include to produce any design or text at col. 4, line 35 and since the same materials are used in the hiding layer. Furthermore, Kurokawa teaches a pattern layer that may be made of ink at col. 3, lines 29-30.

Ganho does not specifically disclose further comprising a coloring agent transfer layer, an adhesive layer, a main protective layer, or a second peeling layer. However, Kurokawa discloses an intermediate transfer sheet applicable to various cards and security devices that comprise a pattern layer, a coloring agent transfer layer of heat-meltable ink of black, cyan, yellow, or magenta, and a transferable adhesive layer in a side by side, alternative relation to a transfer sheet at col. 3, lines 29-30, col. 12, line 58-col. 13, line 10, and col. 14, lines 20-41. The transfer portion has a multilayer structure and are laminated at col. 19, lines 15-24. Kurokawa further teaches a peelable layer (second peeling layer) of acrylic resin at col. 20, lines 45-65, and a release layer of adhesives acrylic, cellulose, or EVA copolymers (see col. 16, lines 20-45), and releasing material, wax (may also function as a peeling/adhesive layer) since Kurokawa teaches peeling strength may be regulated by the content of releasing material added at col. 22, lines 43-68. A protect later is formed over the printed substrate, and may be of thermoplastic resin or wax, see col. 17, line 1-9, col. 18, line 15-30, col. 22, lines 28-31, and col. 24, lines 19-45 and as

Art Unit: 1774

part of the transfer portion (col. 16, line 57-58). Kurokawa's substrate film is of PET or paper at col. 15, lines 48-60. See further Example A1 and col. 18, lines 49-68. Hence it would have been obvious to one of ordinary skill in the art to modify the hiding layer to further include:

- i. a coloring agent transfer layer in a side by side relation in order to provide high gradation and colored detection as taught by Kurokawa at col. 12, line 68 and col. 14, lines 20-21,
- ii. an adhesive layer in a side by side relation to increase adhesive strength as taught by Kurokawa at col. 13, lines 9,
- iii. a second peelable layer because Kruokawa teaches at col. 20, line 52 the advantage of peeling a transfer portion from a substrate, and
- iv. a protective layer for protecting a pattern by preventing deterioration of the image at col. 1, line 57.

For the record, since Kurokawa teaches compatibility of adjacent layers of films, it is obvious to include them in any order as they are laminated.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 1774

- USPN 5,569,347 to Obata et al. teaches heat-meltable ink comprising various colors for thermal transferring ink in a side-by-side relationship applied to a PET film. USPN 6,136,751 to Harada teaches an erasable ink composition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

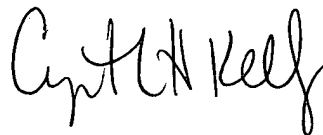
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Tamra L. Dicus
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700



November 13, 2002